

# **City of Proctor**

**100 Pionk Drive . Proctor, MN 55810 . (218) 624-3641**

## **General Information On Decks**

All wood used must be redwood, cedar or pressure treated for exterior use.

Railings are required when the deck is more than 30 inches above the adjoining ground level. Rails must be a minimum of 36 inches high, with horizontal / vertical intermediate members spaced such that a 4 inch diameter sphere cannot pass through.

If deck is connected to the main structure, the deck shall be on piers, a minimum of 5 feet below grade.

A gas meter must be accessible for reading and replacement. For safety purposes, a deck placed over a gas meter must be at least 5 feet above the ground and the gas valve must be accessible at all times. Decking over a meter must have boards spaced which will allow a potential gas leak to rise through and not accumulate. For information or arrangements for relocating meter call Northern Minnesota Utilities, 879-4651.

You must maintain a minimum of 10 feet clearance from the deck to the electrical service drop wires. Also, maintain 10 feet to the bottom of the drip loop.

For clarification on any of the above, or should you have further questions, please contact City Hall at 624-3641.

# City of Proctor

100 Pionk Drive . Proctor, MN 55810 . (218) 624-3641

## Deck Materials

### Wood Decking Materials Allowed By Minnesota State Building Code

Naturally decay and termite resistant wood species such as:

Redwood and Cedar  
Treated Wood

### Naturally Decay Resistant Woods Allowed As Alternate Materials By The Building Official

Douglas Fir heartwood  
Lodgepole Pine heartwood  
Redwood heartwood and sapwood  
Western Red Cedar heartwood  
White Oak sapwood and heartwood  
Western White Pine heartwood  
Red Oak sapwood and heartwood  
Eucalyptus heartwood  
Ponderosa Pine heartwood

### Approved Composite Decking Materials

Composite decking material is not addressed in the Building Code. Thus, it is allowed as an alternative material only when the Building Official finds that the material is, for the purpose intended, at least the equivalent of that [material] prescribed [by the code]. (MSBC 1300.0110 Subp. 13) The Building Official evaluates composite decking products on a product by product basis to determine their equivalence with prescribed materials and other code requirements applicable to decking. ICC Evaluation Services provides reports about products that have been tested and evaluated specifically for compliance with the building code.

The following composite decking products have been approved for use in the City of Proctor:

Correctdeck NER-688  
Certainteed Kingston, Oxford and Cambridge Railing Systems ESR-1555 and NER-605  
Certainteed PVC Deck Planks NER-605  
Endura Board ESR-1890  
Eon Decking ESR-1300  
Epoch Evergrain Decking (Manufactured by ECP in Lamar MO, Not Epoch Decking) ESR-1625  
Fiberon ICC-ES 22-41  
Geodeck  
Life Long Composite ICC-ES 1278 and 1279  
Monarch Decking ESR-1084  
Profection Deck Boards and Pro Perfect Decking ICC-ES 22-41  
Rhino ICBO ER 6134  
Timber Tech Decking ICC ES-2325  
Trex Composite Lumber ICBO ER 5747  
Ultradeck (Manufactured by MME in Eau Claire WI, Not Ultra-Dek) ESR-1674  
Vekadeck ESR-1469  
Veranda Deck Boards ICC-ES 22-41  
Weatherbest ICC ESR 1088 (Special stair requirements)  
Xtendex NER-695

The product supplier or manufacturer can tell you whether an ICC Evaluation report is available for other products. Approval of alternate materials must be by the Building Official.

# City of Proctor

100 Pionk Drive . Proctor, MN 55810 . (218) 624-3641

## Residential Decks

These instructions are for one-floor uncovered decks serving the first or second level of a one or two family dwelling.

### Checklist

All plans must be drawn to scale in black or blue ink with scale noted on plan.

Do not use pencil.

Clearly designate proposed work and all existing conditions.

Provide complete structural information.

Provide **Two** copies of each sheet.

Submit the Deck Application Form fully and accurately completed.



#### Site Plan

Indicating:

- Legal Description and north arrow
- All existing structures
- Dimensions of the lot
- Distance from proposed deck to property lines



#### Deck Elevation View

Indicating:

- Dimensions
- Joists, beams, columns
- Ledger
- Concrete pier, footing
- Height above grade
- All connections



#### Deck Plan View

Indicating:

- Dimensions
- Joist, beam, column size and spacing
- Concrete pier diameter, footing size and spacing
- Wood species and grade
- Guardrail location, height and baluster spacing

Permits will not be issued without a complete application.

# City of Proctor

100 Pionk Drive . Proctor, MN 55810 . (218) 624-3641

## Residential Decks

### Permit Requirement

Required for decks attached to a structure or any deck more than 30 inches above grade. Application and submittal requirements are available in the Building Inspection Department, Proctor City Hall, Proctor, Minnesota.

### Setback Requirements

Always be site specific. Check with the City Zoning Department for your project.

### Decking Material

Heartwood or sapwood from redwood, cedar or other decay and termite resistant wood or treated wood is required. Use 1" decking if joists are at 16" o.c. or less. Use 2" if joists are more than 16" o.c.

### Wood

Exposed wood must be of heartwood or sapwood from redwood, cedar or other decay and termite resistant wood or treated wood.

### Pressure-Treated Wood

Recent changes have been made in the chemicals used in the manufacture of pressure-treated wood. Chromated copper arsenate, also known as CCA, is being phased out and the most common new treatments approved for outdoor use are Alkaline Copper Quaternary (ACQ) and Copper Azole. According to the lumber and fastener industry, the newer chemicals being used to treat the wood approved for outdoor use are considerably more corrosive than those previously treated with CCA and therefore require special fasteners, hangers, and greater care in the selection of materials that may come in contact with the wood. The fastener industry has indicated that some of the hangers and fasteners currently on the market may not perform with some of the new treatments.

### Ledger

Same size as joists. Install lag screws that penetrate 1-1/2" minimum into rim joist or wall studs. A minimum of two 3/8 inch lag screws every 16 inches. Joist hangers must be correct size for joist size used. Connections between deck and dwelling shall be weatherproof. Cuts in exterior finish shall be flashed and or caulked.

### Joists

See JOIST SPAN table for minimum joist size and spacing requirements. Ask your lumber supplier about species and grade.

### Beams

See BEAM AND FOOTING SIZES table for beam size and spacing requirements. Any splices in beam must be over a support. Beams of 2 or more members shall be nailed together with 2 rows of 16d nails at 16" o.c. Ask your lumber supplier about wood species and grade.

### Post size

3-1/2 inch minimum, depending on method of beam connection.

### Cantilevers

Joists should not overhang beams by more than 2 feet, nor should beams over hang joists by more than 1 foot unless a special design is approved.

### Footings

See BEAM AND FOOTING SIZES table for footing size and spacing requirements. Minimum thickness of footing pad is 8 inches but thicker required for larger footings (see chart). Minimum depth to bottom of footing is 5 feet. Reinforcing of footing pad may be recommended.

### Columns (piers, pilasters)

Minimum diameter is 8 inches. Post connection by pin or approved fastener. Reinforcing may be recommended.

### Guardrails

Required where deck floor height above grade is 30 inches or more. Minimum guardrail height for decks accessory to one or two family dwellings is 36 inches. Minimum guardrail height for decks accessory to other dwellings is 42 inches. Distance between bottom of guardrail and deck floor must be less than 4 inches. Where guardrail is adjacent to a stair, a sphere 6 inches in diameter may not pass through the triangular opening created by the guardrail, riser and tread. Balusters must be spaced less than 4 inches apart.

### Handrails

At least one handrail is required where stairs have more than 3 risers. Height must be 34 to 38 inches above the nosing of the tread. Ends must be returned or terminate in posts. Handgrips shall be between 1-1/4 and 2-5/8 inches in cross section or have an equivalent gripping surface and shall have a smooth surface with no sharp corners.

### Stair Width

Minimum 36 inches.

### Riser Height

Maximum 8 inches for stairs accessory to one or two family dwellings. MN SBC requirements address other dwellings. Openings in risers between treads shall be less than 4 inches.

### Tread Width

Minimum 9 inches for stairs accessory to one or two family dwellings. MN SBC requirements address other dwellings.

### Landing Size

Minimum 3 feet x 3 feet required at egress door. Where required, landing may not be more than 8 inches below top of threshold.

# City of Proctor

100 Pionk Drive • Proctor, MN 55810 • (218) 624-3641

## Residential Deck Permit Application

Provide information as indicated

<b>Property Address</b> _____ _____ <b>Owner's Name</b> _____ <b>Applicant Name</b> _____ <b>Applicant Address</b> _____ _____ <b>Applicant is:</b> <b>Owner</b> <input type="checkbox"/> <b>Contractor</b> <input type="checkbox"/>	<b>Legal Description</b> _____ _____ <b>Owner Phone</b> _____ <b>Applicant Phone</b> _____ <b>Applicant Fax</b> _____												
<p>The following information must be provided by the applicant. It must appear both on your plans and on this application. If an item is not applicable to your project, mark it N/A. Applications and plans with missing information are incomplete and will be returned to the applicant by mail, delaying the issuance of a permit.</p>													
<b>Overall Dimensions of the Deck:</b> _____ x _____ ft.	<b>Decking Material</b> Products other than wood must be approved by the Building Official. Evaluation Report by ICC required.												
<b>Joist Size and Spacing</b> x                      @                      o.c.	<b>Joist Species and Grade</b>												
<b>Beam Size(s)</b> x	<b>Beam Species and Grade</b>												
<b>Column Size(s)</b> x	<b>Column Species and Grade</b>												
<b>Joist Cantilever Distance</b> _____ ft.	<b>Beam Cantilever Distance</b> _____ ft.												
<b>Concrete Pier Diameter</b> _____ in.	<b>Pier Reinforcing</b>												
<b>Footing Size(s)</b> Corner                      _____ x _____ ft. (use chart)                      Intermediate                      _____ x _____ ft.	<b>Footing Thickness</b> (8" min.)                      _____ in. <b>Footing Reinforcing</b>												
<b>Height of Deck Floor Above Grade</b> _____ ft.	<b>Guardrail Height</b> _____ in.												
<b>Baluster Spacing</b> _____ in. o.c. Less than 4" between balusters	<b>Connection To Residence</b>												
<b>Stair Width</b> _____ in. <b>Riser Height</b> _____ in. <b>Tread Depth</b> _____ in. <b>Landing Size</b> _____ x _____ ft.	<b>Handrail Height</b> _____ in.  <b>Grippable Handrail Material</b> Max. cross section 2-5/8"												
<p>To the best of my knowledge this application is complete and accurate and I have provided the Building Safety Division with the required items including:</p> <table style="width: 100%;"><tr><td style="width: 20%;">All plans must be</td><td style="width: 20%;"><b>Site Plan</b></td><td style="width: 10%;"><input type="checkbox"/></td><td style="width: 50%;"></td></tr><tr><td>drawn to scale.</td><td><b>Deck Plan</b></td><td><input type="checkbox"/></td><td></td></tr><tr><td>No pencil.</td><td><b>Deck Elevation</b></td><td><input type="checkbox"/></td><td></td></tr></table> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div><b>Applicant's Signature</b> _____</div><div><b>Date</b> _____</div></div>		All plans must be	<b>Site Plan</b>	<input type="checkbox"/>		drawn to scale.	<b>Deck Plan</b>	<input type="checkbox"/>		No pencil.	<b>Deck Elevation</b>	<input type="checkbox"/>	
All plans must be	<b>Site Plan</b>	<input type="checkbox"/>											
drawn to scale.	<b>Deck Plan</b>	<input type="checkbox"/>											
No pencil.	<b>Deck Elevation</b>	<input type="checkbox"/>											

## Beam and Footing Sizes for Decks

Design wood is Southern Pine No. 2, must be treated			Post Spacing										
			4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
Joist Length	6'	Beam size	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10
		Corner Footing	6	7	7	8	9	9	10	10	10	11	11
		Intermediate Footing	9	10	10	11	12	13	14	14	15	15	16
	7'	Beam size	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	2-2x12
		Corner Footing	7	7	8	9	9	10	10	11	11	12	12
		Intermediate Footing	9	10	11	12	13	14	15	15	16	17	17
	8'	Beam size	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12
		Corner Footing	7	8	9	9	10	10	11	11	12	13	13
		Intermediate Footing	10	11	12	13	14	15	16	16	17	18	18
	9'	Beam size	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
		Corner Footing	7	8	9	10	10	11	12	12	13	13	14
		Intermediate Footing	10	12	13	14	15	16	17	17	18	19	20
	10'	Beam size	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x10
		Corner Footing	8	9	10	10	11	12	12	13	14	14	15
		Intermediate Footing	11	12	14	15	16	17	17	18	19	20	21
	11'	Beam size	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12
		Corner Footing	8	9	10	11	12	12	13	14	14	15	15
		Intermediate Footing	12	13	14	15	16	17	17	18	19	20	21
	12'	Beam size	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x10	3-2x12
		Corner Footing	9	10	10	11	12	13	14	14	15	15	16
		Intermediate Footing	12	14	15	16	17	18	19	20	21	22	23
	13'	Beam size	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12
		Corner Footing	9	10	11	12	13	13	14	15	15	16	17
		Intermediate Footing	13	14	15	17	18	19	20	21	22	23	24
14'	Beam size	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	
	Corner Footing	9	10	11	12	13	14	15	15	16	17	17	
	Intermediate Footing	13	15	16	17	18	20	21	22	23	24	24	
15'	Beam size	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	
	Corner Footing	10	11	12	13	14	14	15	16	17	17	18	
	Intermediate Footing	14	15	17	18	19	20	21	22	23	24	25	
16'	Beam size	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	
	Corner Footing	10	11	12	13	14	15	16	16	17	18	18	
	Intermediate Footing	14	15	17	18	20	21	22	23	24	25	25	

Minimum footing thickness is 8" unless shaded:

Denotes minimum 10" thick footing  
Denotes minimum 12" thick footing

Footing pad sizes are for diameter in inches.

Minimum depth to bottom of footing = 60"

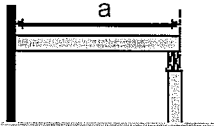
### JOIST SPAN

Based on No. 2 or better wood grades.

(Design Load = 40#LL + 10#DL, Deflection= L/360)

	Ponderosa Pine			Southern Pine			Western Cedar		
	12" OC	16" OC	24" OC	12" OC	16" OC	24" OC	12" OC	16" OC	24" OC
2X6	9-2	8-4	7-0	10-9	9-9	8-6	9-2	8-4	7-3
2X8	12-1	10-10	8-10	14-2	12-10	11-0	12-1	11-0	9-2
2X10	15-4	13-3	10-10	18-0	16-1	13-5	15-5	13-9	11-3
2X12	17-9	15-5	12-7	21-9	19-0	15-4	18-5	16-0	13-0

### Case One Solution



Refer to tables for joist, beam and footing size requirements. Example: a = 12'; Post spacing = 8'

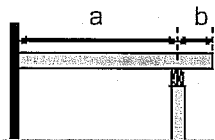
Use the joist span table to find the acceptable joist sizes for a 12' span, 2x8s at 12" O.C., 2x10s at 16" O.C. or 2x12s at 24" O.C. Use the Beam and footing sizes table and find the 8' post spacing column. With

a 12' deck span, the beam may be either two 2x8s or two 2x10s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 12", 10" or 9" for the corner post and 17", 14" or 12" for all intermediate posts.

Use "a" to determine joist size and "a" + "2b" to determine beam and footing sizes. The length of "b" is restricted by both the length of "a" and the size of the joists. Example: a = 8', b = 2', Post spacing = 10'

Refer to the joist span table. For an 8' joist span, either 2x8s at 24" O.C. or 2x6s at 16" O.C. are acceptable. For sizing the beam, use a joist length of 12' (8' + 4') and a post spacing of 10'. The beam and footing sizes table indicates that the beam may be either two 2x10s or two 2x12s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 15", 12" or 11" for the corner post and 20", 17" or 15" for all intermediate posts. Note that because of the 2' cantilever all footing sizes were increased by 1" as required by footnote 2 at the end of the table. a b

### Case Two Solution



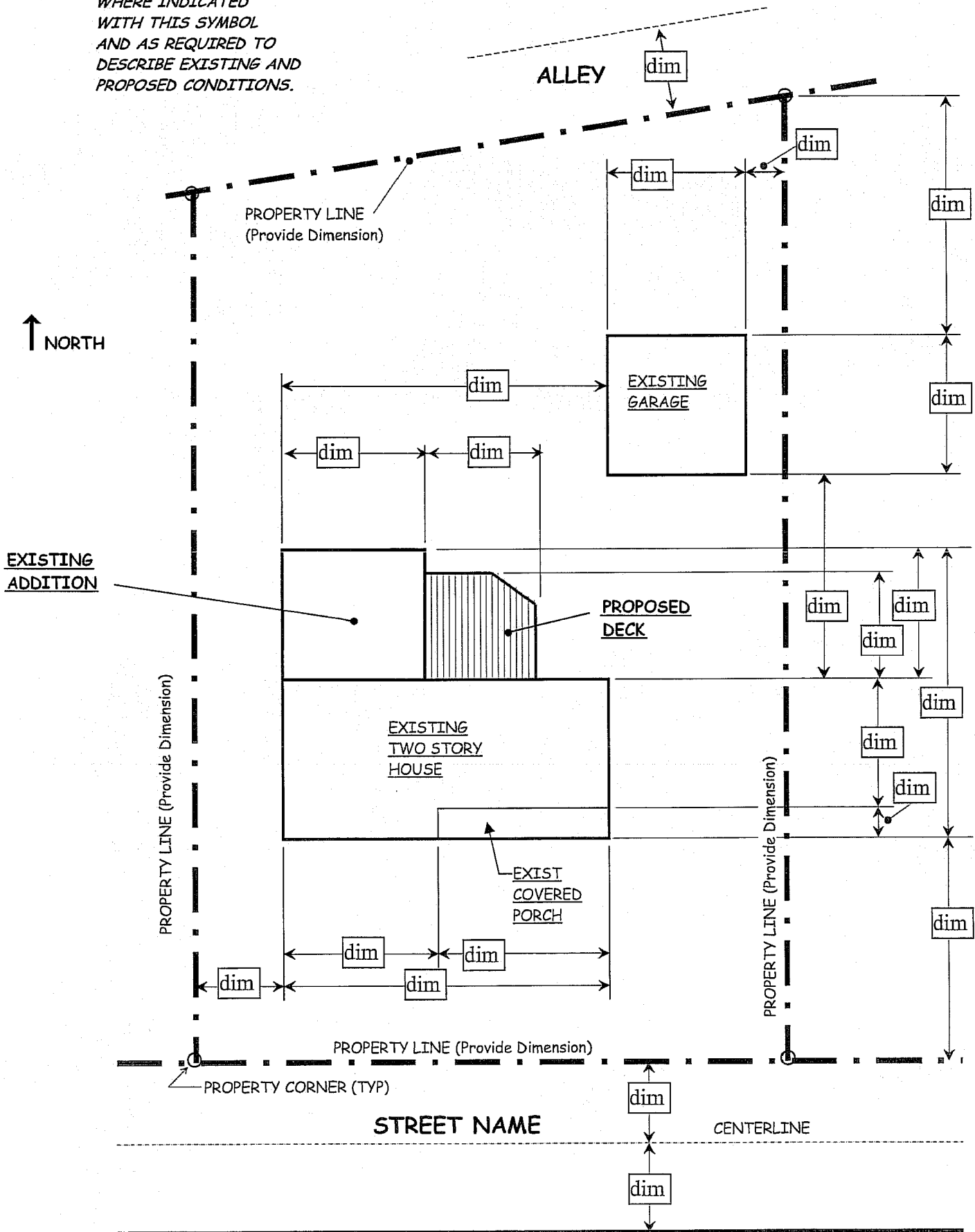
# SAMPLE SITE PLAN

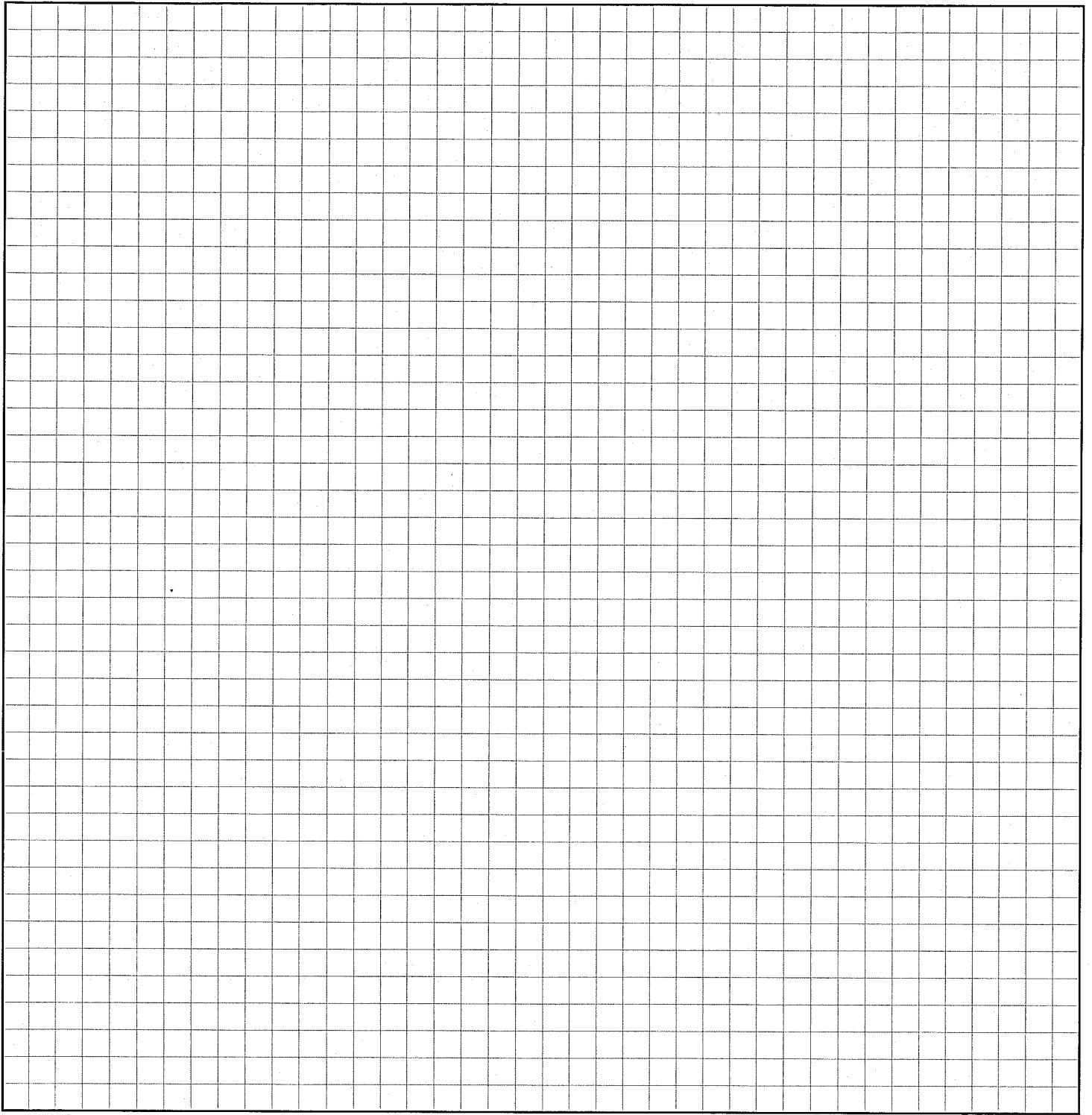
Do not use this sheet-create your own drawing.

SCALE: 1" = \_\_\_\_\_ FEET

**dim** PROVIDE DIMENSIONS  
WHERE INDICATED  
WITH THIS SYMBOL  
AND AS REQUIRED TO  
DESCRIBE EXISTING AND  
PROPOSED CONDITIONS.

NOTE:  
IMPORTANT DIMENSIONS INCLUDE:  
THE DIMENSIONS OF THE DECK. THE  
DISTANCE FROM THE DECK TO OTHER  
STRUCTURES. THE DISTANCE FROM THE  
DECK TO THE LOT LINES. THE DISTANCE  
FROM THE DECK TO THE CENTERLINE OF  
THE STREET(S) AND ALLEY(S).





**North Arrow Required**

**Scale: 1" = \_\_\_\_\_ Feet**

**SITE PLAN**

**Do Not Use Pencil**

<b>Site Address</b>	_____
<b>Owner's Name</b>	_____
This Site Plan is an accurate and complete representation of the footprint(s) of all existing and proposed structure(s) and their location(s) on the subject property.	
<b>Applicant Signature</b>	_____
<b>Date</b>	_____

<b>Legal Description (Required)</b>
_____
_____
_____
_____



# City of Proctor

100 Pionk Drive • Proctor, MN 55810 • (218) 624-3641

## Deck Elevation

This is a sample of a typical deck elevation. Your plan may differ from the assembly shown.

Draw Your Own Elevation Representing Your Project. Provide dimensions and information as indicated.

### Decking Material

Joist Size / Spacing

Joist Species / Grade

Joist Hangers

Joist / Beam Connection

Ledger Size / Species

Beam Size / Species / Grade

Beam Cantilever

Beam / Column Connection

Beam / Column Diag. Bracing

Column Size / Species / Grade

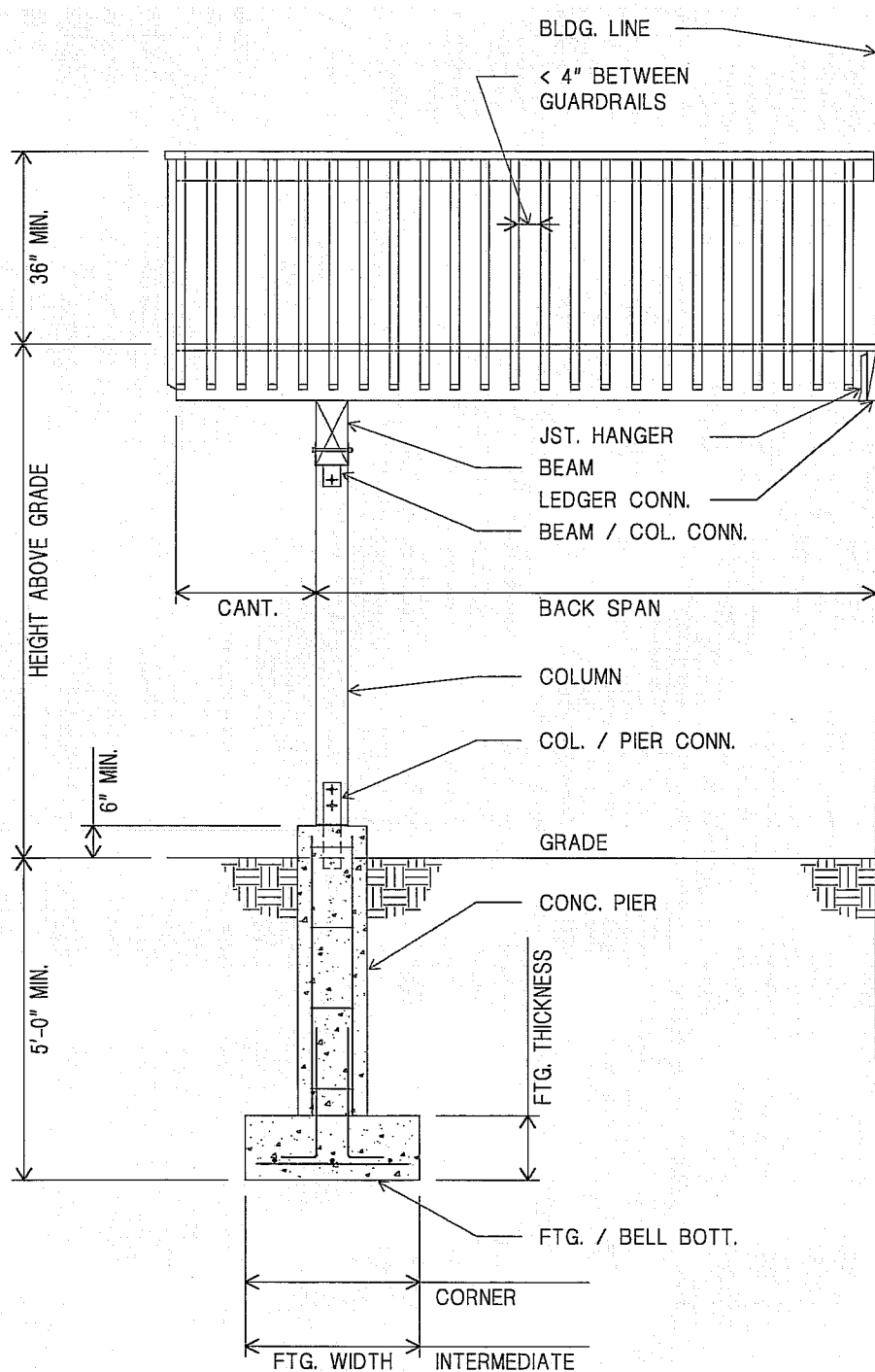
Column / Pier Connection

Concrete Pier Dia.

Concrete Pier Reinf. / Dowels

Corner Footing Reinf.

Intermediate Footing Reinf.



**Project**

**Description**

**Drawn By**

**Deck Elevation**

**Phone No.**

**Scale**

**Date**

2x10 LEDGER, TREATED SYP No. 2  
DENSE, ATTACHED TO EXIST. RIM  
W/ (2) - 1/2" DIA. LAG BOLTS  
AT 16" O.C., STAGGER

EXIST. FND. WALL

USP JUS210-2TZ JST. HANGER  
AT DOUBLE JSTS., TYP.

USP JUS210-TZ JST. HANGER, TYP.

(2) - TREATED 2x10 AT  
DECK EDGE

TREATED 2x10 AT 16" O.C., TYP.

TREATED 2x10 BLOCKING  
BETWEEN JSTS. AT CENTER  
SPAN

12" DIA. CONC. PIER

2'-6" x 2'-6" x 1'-0"  
PAD FOOTING

5-1/4" x 5-1/4" TREATED  
PARALLAM COLUMN

2x10 TREATED RIM

5-1/4" x 11-7/8" TREATED  
PARALLAM BEAM

8'-0"

2'-0"

10'-0"

12"

10'-0"

12'-0"

12"



○ SAMPLE DECK PLAN

3/8" = 1'-0"

**Project**

**Description**

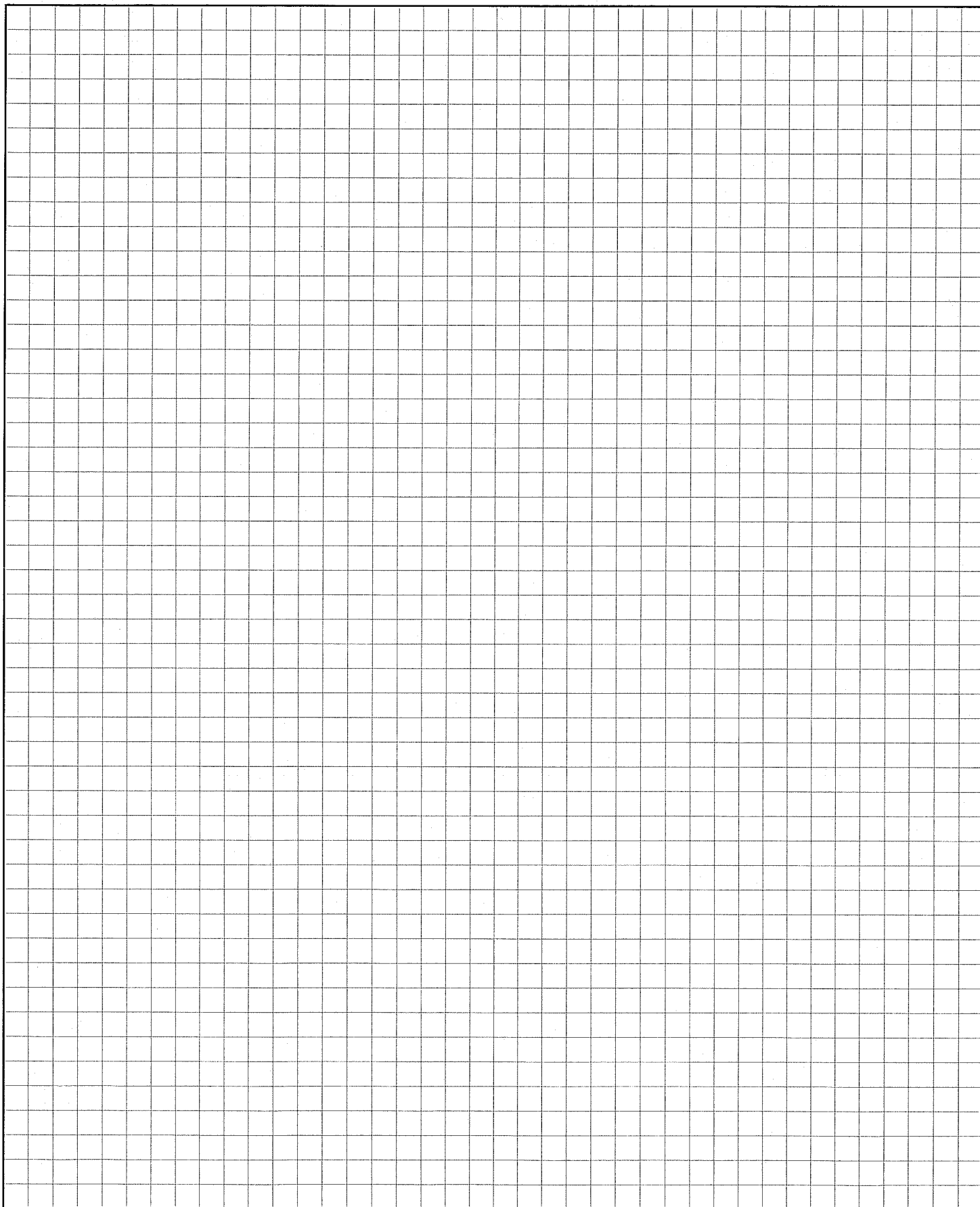
**Drawn By**

Deck Plan

**Scale**

**Date**

**Phone No.**



# Building Permit Application

## City of Proctor

100 Pionk Drive • Proctor, MN 55810 • (218) 624-3641

<b>LOCATION OF BUILDING</b>	Street Address	Parcel Code	
	Subdivision		
	Block #	Lot #	Zone

<b>For Office Use Only</b>	<b>TYPE OF IMPROVEMENTS</b> <input type="checkbox"/> Manufactured Home <input type="checkbox"/> Site-Built Home <input type="checkbox"/> Residential Addition <input type="checkbox"/> Residential Remodeling <input type="checkbox"/> Residential Garage or Storage <input type="checkbox"/> Commercial Building <input type="checkbox"/> Commercial Addition <input type="checkbox"/> Commercial Remodeling <input type="checkbox"/> Demolition <input type="checkbox"/> Sign	<b>DIMENSIONS</b>  Lot Dimensions: _____ X _____  Lot Area: _____  Structure Size: _____ Sq. ft.  Yards of Fill: _____ Cu. yds.
<b>Ground Water Management/Wetlands</b> YES NO		<b>VALUE OF PROJECT</b> (Omit cents)
<b>Drawings</b> YES NO		
<b>Sanitary Check-Off</b> YES NO		
<b>Plan Review</b> YES NO		
<b>INSPECTIONS</b>		
<b>Footing</b> Date	<b>TYPE OF SEWER</b> <input type="checkbox"/> On-Site sewer disposal <input type="checkbox"/> Public  <b>TYPE OF WATER</b> <input type="checkbox"/> Well <input type="checkbox"/> Public	Contractor's Price
<b>Foundation</b> Date		Square foot value estimate
<b>Framing</b> Date		Plumbing
<b>Mechanical</b> Date		Heating/Air Conditioning
<b>Insulation/Vapor</b> Date		Other
<b>Final</b> Date	Total	

Size

Describe Project

Owner	Address	Telephone
Architect	Address	Telephone
Contractor	Address	Telephone

Contractor License #

Applicant's Signature	Permit Fee:	
Approved By	Plan Check Fee:	
Date	Receipt No.	Permit No.
State Surcharge:		

The owner of this building and the undersigned agree to all applicable laws of PROCTOR, MN and to allow access to said property by Proctor Building officials and Planning and Zoning Commissions. It is the applicants/property owners responsibility to build on their own property and call for required inspections.

TOTAL

# City of Proctor

100 Pionk Drive . Proctor, MN 55810 . (218) 624-3641

## Required Inspections

In accordance with the Minnesota State Building Code, it is the duty of the person doing work authorized by a permit to notify the appropriate official that such work is ready for inspection. It is also the duty of the person requesting the inspection to provide access to and a means for completion of the inspections. Allow a minimum of 24 hours notice for inspections.

---

**FOOTING/ENGINEERED SLAB INSPECTIONS:** Prior to pouring any concrete, all footing and formwork, including reinforcement and miscellaneous embedments must be inspected.

**FOUNDATION WALL INSPECTIONS:** Poured concrete walls must be inspected prior to pouring concrete. All foundation walls must be inspected prior to backfilling.

**SITE UTILITY INSPECTIONS:** All site utilities, including the water service, sanitary sewer/septic system(s), storm sewer etc. must be inspected and/or tested by the appropriate authority having jurisdiction prior to covering or concealment.

**PLUMBING, MECHANICAL, ELECTRICAL AND FIRE SPRINKLER SYSTEM WORK:** All plumbing piping, including waste/vent and water piping must be inspected prior to concealment. All mechanical ductwork, fire dampers, flues, controls and equipment, and gas, hydronic and process piping must be inspected prior to concealment. All electrical wiring, controls and equipment must be inspected prior to concealment.

**INSULATION/ENERGY CODE COMPLIANCE INSPECTION:** All required exterior envelope insulation and vapor barriers and all required duct and convection pipes and apparatuses must be insulated and approved prior to concealment.

**FIRESTOPPING INSPECTION(S):** All penetrations of any fire-resistive membrane, including walls, floors, roofs, ceilings, etc. must be inspected for proper placement and installation of the required fire-stop system. All sealing of fire-rated penetrations must be inspected and approved prior to concealment.

**STRUCTURAL/FRAME INSPECTION:** All framework, structural and non-structural, must be inspected and approved prior to covering. **All rough-in mechanical, (i.e., plumbing, electrical, mechanical, fire sprinklers, etc.) must have already been inspected and approved at this stage of work also.**

**HEALTH DEPARTMENT INSPECTIONS:** Inspections by Health Department personnel may be required for commercial kitchen installations, food and beverage establishments and other associated operations. Verify required Health Department inspections with the State Health Department.

**REQUIRED SPECIAL INSPECTIONS:** In accordance with the Special Inspection Requirements of the code, it may be necessary for special inspectors to be employed to inspect such things as soils, concrete, steel reinforcing placement, structural welding and bolting, spray-on fireproofing, structural masonry construction, smoke control systems, pilings, caissons and other inspections as deemed necessary by the Architect and/or Engineer of record. Work requiring special inspections may not be covered/concealed until required inspections are complete and approved.

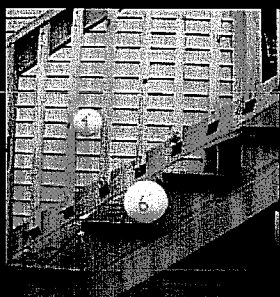
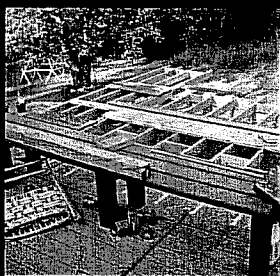
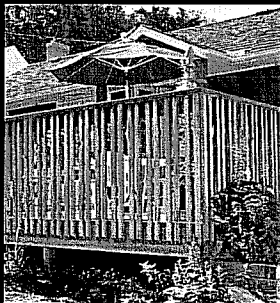
**OTHER REQUIRED INSPECTIONS:** Depending on the complexity of a building or structure and the equipment specified for installation, such as for elevators, the code may require or allow for other required inspections as deemed necessary by the authority having jurisdiction.

**FIRE CODE INSPECTIONS:** Applicable State Fire Code regulations must be completed and approved by the Fire Marshal prior to final inspection and occupancy of the building or structure.

**FINAL INSPECTIONS:** A final inspection will be required for all plumbing, electrical, mechanical, fire sprinklers, fire alarm, fire code, health and building code compliance issues. Upon successful completion and approval of all systems, a Certificate of Occupancy will be issued.

# DECKS

*Guidelines for planning  
the construction  
of a deck.*



## PERMITS

Building permits are required for all decks that are attached to the home or are 30 inches or more above grade. Decks and platforms not more than 30 inches above adjacent grade and not attached to a structure with frost footings do not require a building permit, but may require a zoning or land use permit.

Decks and platforms are required to meet the land use requirements of the community's zoning code. Zoning questions should be directed to the local planning and zoning department. This is an important first step in the planning of any deck project.

## PERMIT FEES, PLAN REVIEWS, AND INSPECTIONS

Permit fees are established by the municipality. The plan review is done by the building official in order to spot potential problems or pitfalls that may arise. The inspector may make notes on the plan for your use. Inspections are performed at various stages of construction to verify code compliance. Actual permit costs can be obtained by calling your local Building Inspection Department with your estimated construction value.

Your Building Inspector will need:

1. Application for permit.
2. Site plan of survey.
3. Deck plan with all applicable structural details.

## REQUIRED INSPECTIONS

**(Verify with municipality)**

1. **Footings:** After the holes are dug, but **PRIOR TO THE POURING OF CONCRETE!**
2. **Framing:** To be made after framing is completed. This inspection can be completed at the time of the final inspection if all parts of the framing will be visible and accessible with prior approval of the Building Official.
3. **Final:** To be made upon completion of the deck.

## SETBACKS

Setbacks from property lines vary depending upon the city and zoning district your home is located in. Contact the Building or Planning Department in your community for the requirements in your location. This is an important first step in the planning for any deck project.

**Construction Codes  
and Licensing Division**  
**Building Codes and Standards**  
443 Lafayette Road N.  
St. Paul, MN 55155-4341

DLI Main: (651) 284-5005  
BCS Unit Direct: (651) 284-5068  
Fax: (651) 284-5749  
TTY: (651) 297-4198

[www.doli.state.mn.us](http://www.doli.state.mn.us)

The State of Minnesota adopts a set of construction standards known as the Minnesota State Building Codes (MSBC). The MSBC contains safety requirements relating to structure, mechanical, plumbing, energy, electrical, elevators, manufactured buildings, and life safety.

The information in this brochure is for general reference for residential construction projects. Contact your municipal Building Official regarding permits and specific code requirements for residential construction within your community.

# DECKS *continued*

## GENERAL BUILDING CODE REQUIREMENTS

- a. Footings must extend to frost depth (if attached to the house).
- b. Decks need to be designed for a 40-pound per square foot live load and balconies to a 60 pound per square foot live load. Decks exposed to the weather must be constructed of approved wood with natural resistance to decay such as redwood, cedar or treated wood. Ledger boards must be bolted or lagged to the building and all connections between the deck and dwelling must be flashed. Before using alternative building products, check with your local building official.
- c. Columns and posts in contact with the ground or embedded in concrete, earth or masonry must be of pressure treated wood approved for ground contact.
- d. Cedar or redwood posts need an 8 inch separation from the ground.
- e. All decks, balconies or porches, open sides of landings and stairs which are more than 30 inches above grade or a floor below must be protected by a guard not less than 36 inches in height. Grade is measured at edge of structure. Open guard and stair railings require intermediate rails of an ornamental pattern such that a sphere 4 inches in diameter cannot pass through.
- f. If a stairway is to be provided, it must be not less than 36 inches in width. Stairways may be constructed having an 8-inch maximum rise (height) and a 9-inch minimum run (length). The largest tread rise and tread run may not exceed the smallest corresponding tread rise or run by more than  $\frac{3}{8}$  inch. Stairway illumination as required by the code. Open risers are permitted, provided that the opening between the treads does not permit the passage of a 4 inch diameter sphere.
- g. Handrails are required on all stairways having 4 or more risers. Handrails may not be less than  $1\frac{1}{4}$  inches nor more than  $2\frac{5}{8}$  inches in cross sectional area. The top of handrail must be not less than 34 inches nor more than 38 inches above the nosing (front edge) of treads and they must be returned to a wall or post.
- h. The electrical code requires overhead power lines to be located a minimum 10 feet above decks and platforms. Existing lines may need to be raised if a new deck is to be installed beneath them.
- i. **Outside meters, wells, and septic systems.** When locating a deck, care must be given to the location of existing gas and electric meters, wells, and septic systems. These may need to be relocated to allow for construction of the deck. Septic systems and wells may be difficult to relocate, requiring an alternative location for

the deck. Prior to placement of any deck which will interfere with these devices, contact your local Building Inspector.

- j. **Outside water meter readers.** Some communities use a remote outside water meter-reading device that may need to be relocated to allow for construction of a deck. These devices must be relocated properly and may require special tools. Prior to placement of any deck, that will interfere with the operation or accessibility of the reader, contact you local Building Inspector or Water Department to obtain information and procedures on relocating these devices. Note: For specific code requirements, please contact your local Building Department.

## Notice Regarding Pressure-Treated Wood

Recent changes have been made in the chemicals used in the manufacture of pressure-treated wood. Chromated copper arsenate, also known as CCA, is being phased out and the most common new treatments approved for outdoor use are Alkaline Copper Quaternary (ACQ) and Copper Azole. According to the lumber and fastener industry, the newer chemicals being used to treat the wood approved for outdoor use are considerably more corrosive than those previously treated with CCA and therefore require special fasteners, hangers, and greater care in the selection of materials that may come in contact with the wood. The fastener industry has indicated that some of the hangers and fasteners currently on the market may not perform with some of the new treatments.

Designers, builders, and home owners will need to pay particular attention to the grade marks on the lumber, and verify that proper hardware (hangers, nails, brackets) are appropriate with the particular treatment of the lumber. This not only applies to decks utilizing these products but sill plates and posts as well. The code references the American Wood Preservers Association (AWPA), which has published information on this issue. Particular attention should also be made to the manufacturer's installation instructions for the hardware. Questions should be directed to your wood and fastener supplier or your local Building Official.



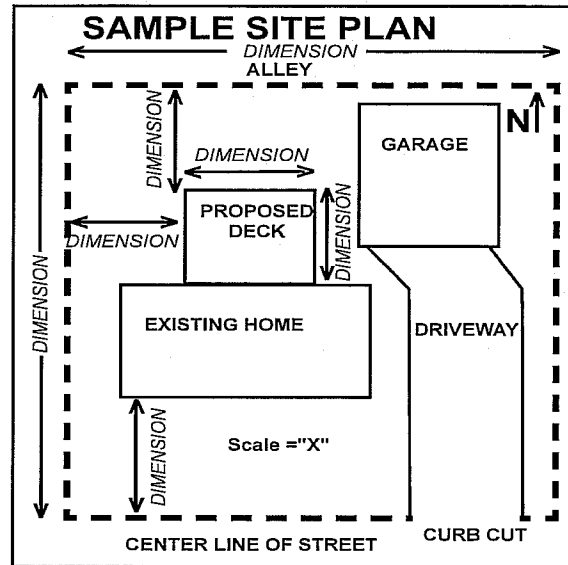
# DECKS continued

## PLANS: SITE, FLOOR, and ELEVATION

The following text and sample drawings show the minimum detail expected so the permit process can proceed smoothly.

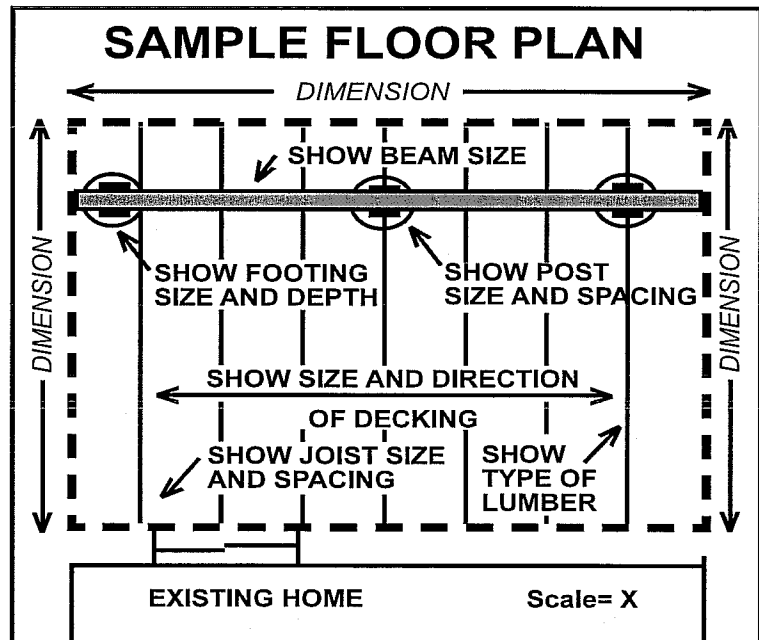
**TWO sets of each plan are required.** Plans do not need to be professionally drawn. Plans should include all of the information requested and drawn to scale.

**Certificate of Survey or Site Plan** drawn to scale indicating the lot dimensions, the location and size of the existing structure(s), and the location and a size of the proposed structure. Indicate the setbacks from property lines of the existing and proposed structure(s). Including septic system area and wells if applicable.



## FLOOR PLAN

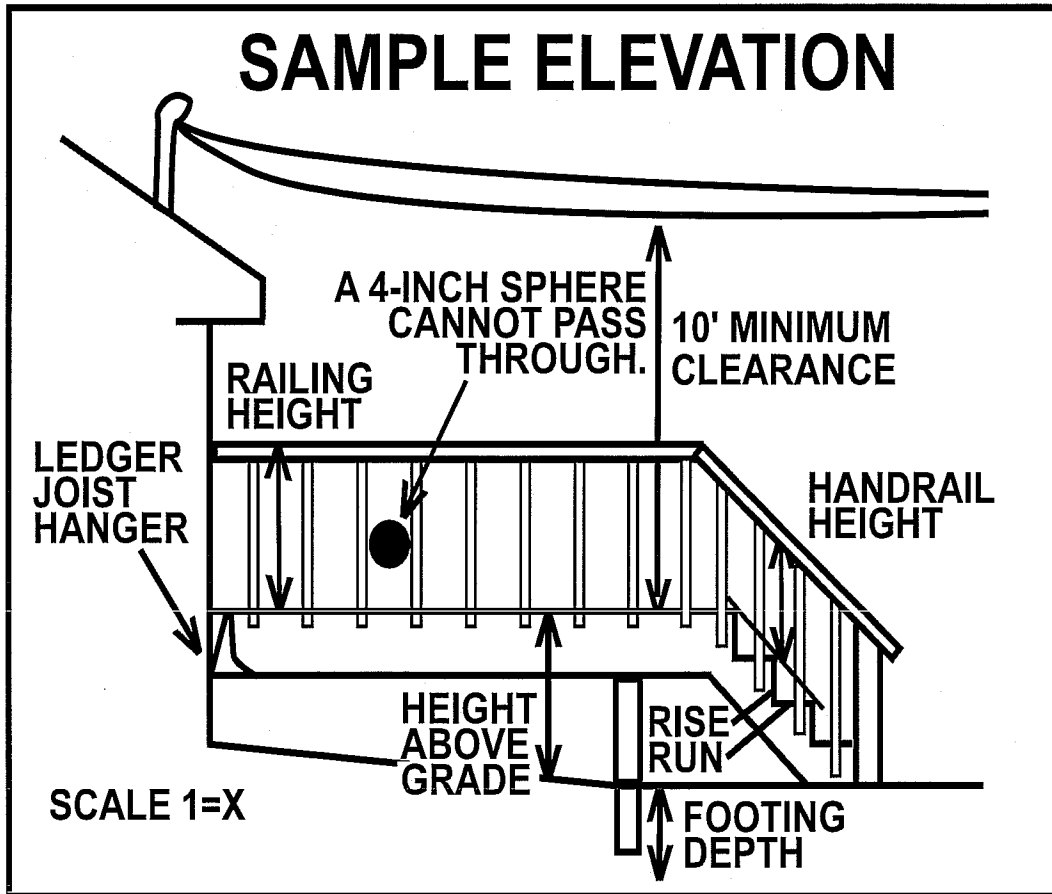
1. Proposed deck size.
2. Size and spacing of floor joists.
3. Size and type of decking material.
4. Size, type, location, and spacing of posts.
5. Size and type of beams.



# DECKS continued

## ELEVATION PLAN

1. Height of structure from grade.
2. Size and depth of footings.
3. Guard height and spacing (if any).
4. Stairway rise/run and handrail height (if any).
5. Clearance of over-head wires (if applicable).



Call at least 2 full business days before you dig.

1-651-454-0002

1-800-252-166 [www.gopherstateonecall.org](http://www.gopherstateonecall.org)